In the Claims

1. (Currently Amended) A continuous time sigma delta converter comprising:

conversion means ~~(510, 520, 530, 540, 560)~~ having known non-ideal characteristics and arranged to provide an output signal;

a compensation circuit ~~(570)~~ comprising error modelling components ~~(370, 375, 380, 385, 390, 395)~~ arranged to substantially model the non-ideal characteristics of the conversion means ~~(510, 520, 530, 540, 560)~~ in order to provide a compensation signal; and

summation means ~~(490)~~ coupled to combine the compensation signal with the output signal in order to provide a compensated output signal.

2. (Currently Amended) The converter of claim 1 further characterised by:

the summation means ~~(580)~~ being arranged to subtract the compensation signal from the output signal in order to provide the compensated output signal.

3. (Cancelled)

4. (Currently amended) A method ~~for~~ of compensating for known non-ideal characteristics in a continuous time sigma delta converter ~~(510, 530, 540, 560)~~, the method comprising:

converting an input signal of one time domain to an output signal of another time domain using a converter ~~(510, 530, 540, 560)~~ having known non-ideal characteristics;

modelling the non-ideal characteristics of the converter in a compensation circuit ~~(570)~~; and

combining a compensation signal output of the compensation circuit ~~(570)~~ with the output signal of the converter ~~(510, 530, 540, 560)~~ in order to provide a compensated output signal.

5. (Currently Amended) The converter of claim 1 further characterised by:

the non-ideal characteristics being associated with a feedback path ~~(540)~~ of the converter.

6. (Currently Amended) The converter of claim 1 further characterised by:

the non-ideal characteristics including symmetrical errors ~~(235)~~ associated with non-ideal rising and falling edges ~~(230)~~ of signal transitions of the converter ~~(510, 530, 540, 560)~~.

7. (Currently Amended) The converter of claim 1 further characterised by:

the non-ideal characteristics including asymmetrical ~~(245)~~ errors associated with non-ideal rising and falling edges ~~(230)~~ of signal transitions of the converter ~~(510, 530, 540, 560)~~.

8. (Currently Amended) The converter of claim 1 further characterised by:

the compensation circuit ~~(570)~~ having calibration parameters ~~(375, 395)~~ determined by a dichotomy technique which iteratively refines the values of the calibration parameters ~~(375, 395)~~.

9. -14 (Cancelled)

15. (Currently Amended) The method of claim 4 further characterised by:

the non-ideal characteristics being associated with a feedback path ~~(540)~~ of the converter.

16. (Currently Amended) The method of claim 4 further characterised by:

the non-ideal characteristics including symmetrical errors ~~(235)~~ associated with non-ideal rising and falling edges ~~(230)~~ of signal transitions of the converter ~~(510, 530, 540, 560)~~.

17. (Currently Amended) The method of claim 4 further characterised by:

the non-ideal characteristics including asymmetrical ~~(245)~~ errors associated with non-ideal rising and falling edges ~~(230)~~ of signal transitions of the converter ~~(510, 530, 540, 560)~~.

18. (Currently Amended) The method of claim 4 further characterised by:

the compensation circuit ~~(570)~~ having calibration parameters ~~(375, 395)~~ determined by a dichotomy technique which iteratively refines the values of the calibration parameters ~~(375, 395)~~.